

AMENDMENTS TO THE CLAIMS, COMPLETE LISTING OF CLAIMS
IN ASCENDING ORDER WITH STATUS INDICATOR

Please amend the claims as follows.

1. (Canceled).
2. (Previously Presented) A method of aminoacylating a tRNA, characterized in that, in the production of an aminoacyl- tRNA by selectively aminoacylating a tRNA, the tRNA and an amino acid are enclosed in the vicinity of the micelle-water interface and brought close to each other to react with each other.
3. (Original) The aminoacylation method according to claim 2, wherein the carboxyl group of the amino acid is activated and enclosed in the micelle, and only the hydroxyl group region at the 3' end of the tRNA is inserted in the vicinity of the micelle-water interface, whereby the hydroxyl group at the 3' end and the activated carboxyl group are brought close to each other in the vicinity of the micelle-water interface to react with each other.
4. (Original) The aminoacylation method according to claim 2, wherein the carboxyl group of the amino acid is activated inside the micelle by using a condensing agent, and only the hydroxyl group region at the 3' end of the tRNA is inserted in the vicinity of the micelle-water interface, whereby the hydroxyl group at the 3' end and the activated carboxyl group are brought close to each other in the vicinity of the micelle-water interface to react with each other.
5. (Original) The aminoacylation method according to claim 3 or 4, wherein the 3' end group region is rendered hydrophobic by site-specifically and complementarily binding a peptide nucleic acid in which a hydrophobic functional group has been introduced at the end thereof to the tRNA in such a manner that the hydrophobic group comes close to the vicinity of the 3' end of the tRNA, whereby only the hydroxyl group region at the 3' end of the tRNA is inserted in the vicinity of the micelle-water interface.

6. (Currently Amended) The aminoacylation method according to any one of claims ~~2 to 5~~ 2 to 4, wherein an amino acid whose amino group has been protected is used.

7. (Currently Amended) The aminoacylation method according to any one of claims ~~2 to 6~~ 2 to 4, wherein the reaction is carried out in the presence of a surfactant.

8. (Currently Amended) The aminoacylation method according to any one of claims ~~2 to 6~~ 2 to 4, wherein the reaction is carried out in the presence of polyethyleneimine or a dendrimer with a cationic group on a surface thereof.

9. (Currently Amended) The aminoacylation method according to any one of claims ~~2 to 8~~ 2 to 4, wherein the reaction is carried out in an O/W (oil in water) type micelle.

10. (Currently Amended) The aminoacylation method according to any one of claims ~~2 to 8~~ 2 to 4, wherein the reaction is carried out in an oil free system.

11. (Currently Amended) The aminoacylation method according to any one of claims ~~2 to 10~~ 2 to 4, wherein the reaction is carried out by using a transesterification catalyst exhibiting a high catalytic activity at around a neutral pH.

12. (Previously Presented) A method of aminoacylating a tRNA, characterized in that, in the production of an aminoacyl- tRNA by selectively aminoacylating a tRNA, a peptide nucleic acid specifically and complementarily binding to the tRNA in which a cationic amino acid has been introduced at the other end is interposed as an antisense molecule, whereby the tRNA and the amino acid are brought close to each other to react with each other.

13. (Previously Presented) The aminoacylation method according to claim 12, wherein the amino acid to be introduced in the tRNA is bound to the antisense molecule through an ester bond in advance and reacted with the tRNA.

14. (Original) The aminoacylation method according to claim 13, wherein the reaction is carried out by using the one in which the amino acid has been bound to the antisense molecule through an active ester.

15. (Original) The aminoacylation method according to claim 14, wherein the reaction is carried out by using the one in which a linker has been provided between the antisense molecule and the active ester.

16. (Canceled).

17. (Original) The aminoacylation method according to claim 12, wherein the reaction with the tRNA is carried out by using a compound represented by the following formula [1]:



[wherein -cAm- represents a cationic amino acid residue or an oligopeptide residue consisted of 2 to 5 cationic amino acids, -PNA- represents a peptide nucleic acid residue, -L- represents a linker, -E- represents an active ester residue, and -Am represents an amino acid residue to be introduced in the tRNA].

18. (Previously Presented) The aminoacylation method according to claim 12, 13, 14, 15 or 17, wherein the reaction is carried out by using a transesterification catalyst exhibiting a high catalytic activity at around a neutral pH.

19. (Currently Amended) The aminoacylation method according to claim 12, 13, 14, 15, or 17 ~~or 18~~, wherein a reaction terminator is used.

20. (Original) The aminoacylation method according to claim 19, wherein the reaction terminator is a peptide nucleic acid which forms a complementary pair with the peptide nucleic acid specifically and complementarily binding to the tRNA.

21. (Currently Amended) The aminoacylation method according to claim 12, 13, 14, 15, or 17 ~~or 18~~, wherein the reaction is carried out by using further DNA as the antisense

Application No.: Not Yet Assigned

Docket No.: SAE-0031

molecule other than the peptide nucleic acid which specifically and complementarily binds to the tRNA.

Claims 22-25 (Canceled).